



FIG. 1
PRIOR ART

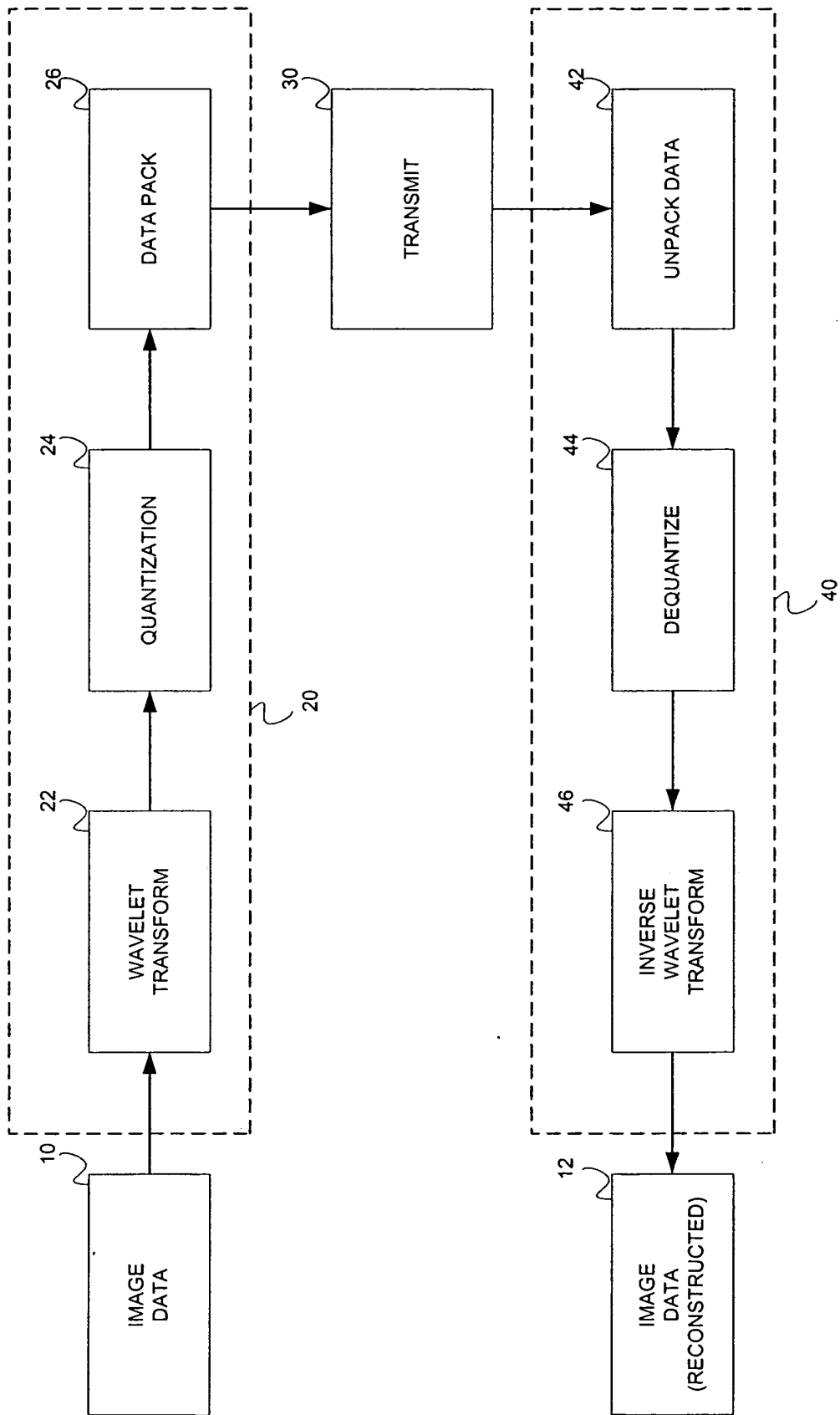


FIG. 2

```

graph TD
    S100[Receive Image Data] --> S102[For Level 1, LL, HL, LH, and HH Subbands  
DWT Transform, Quantization, and  
Data Pack With Adaptive Run Length  
Encoding]
    S102 --> S104[For Levels N-1, N, on HL, LH, HH Subbands  
Preform DWT Transform Quantitization  
And Data Pack With Two Knob  
Human Encoding]
    S104 --> S106[For Level N on LL Subband  
Preform Low Frequency  
Data Packing]
    S106 --> 30[Transmit On  
Electronic Medium]

```

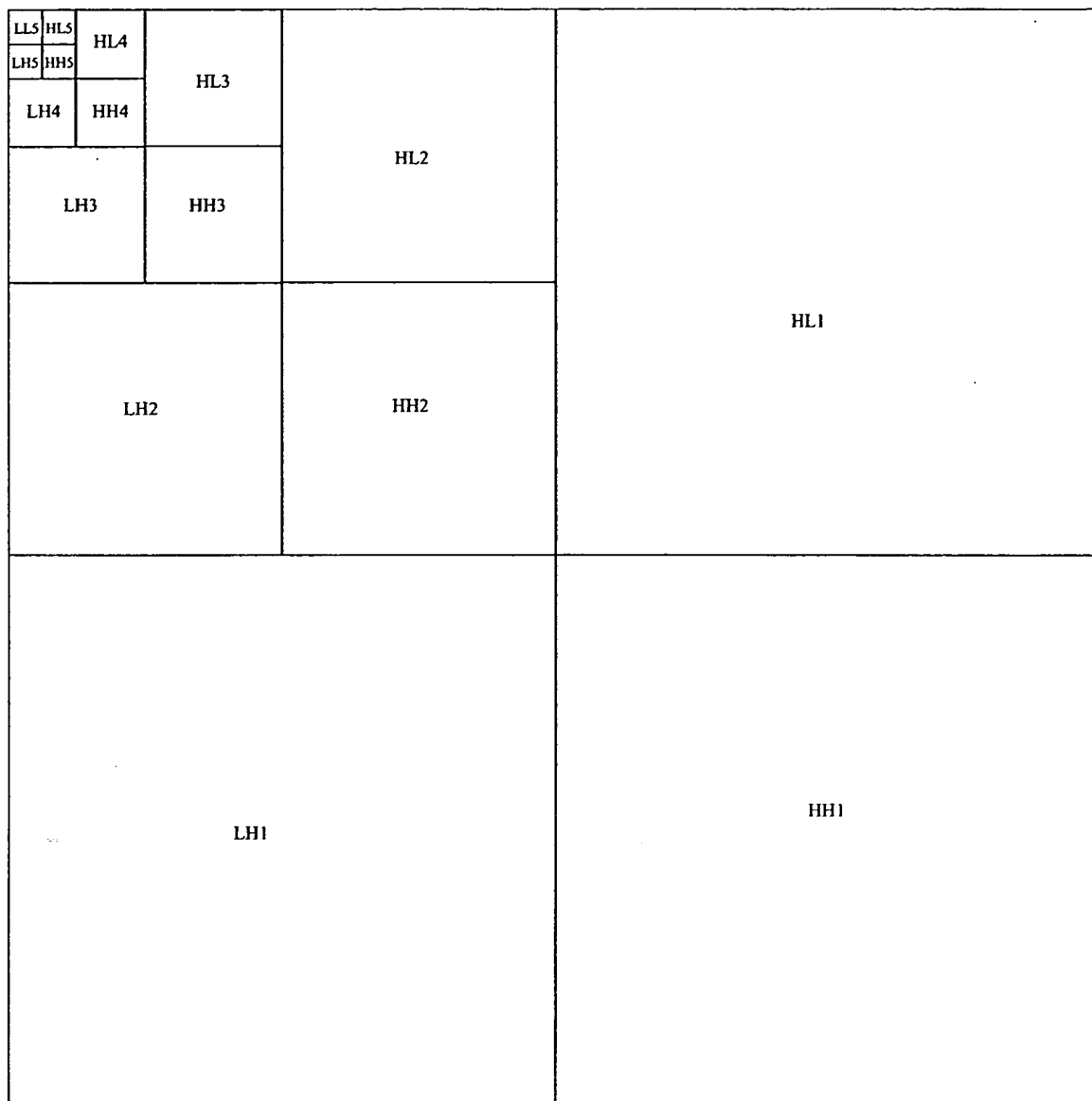


FIG. 4

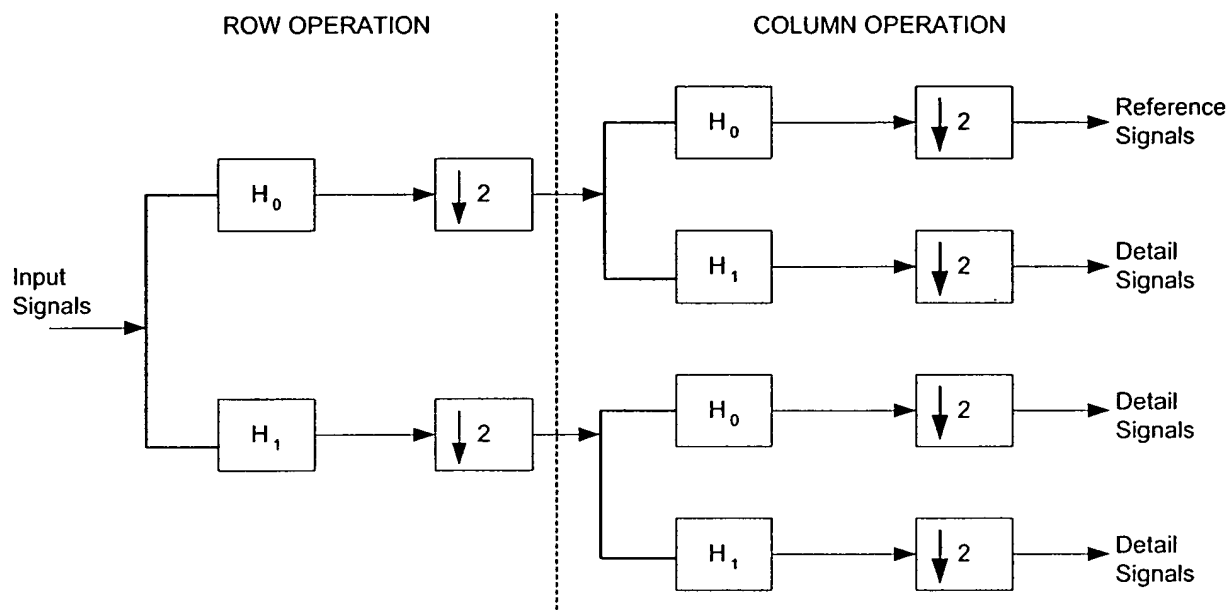
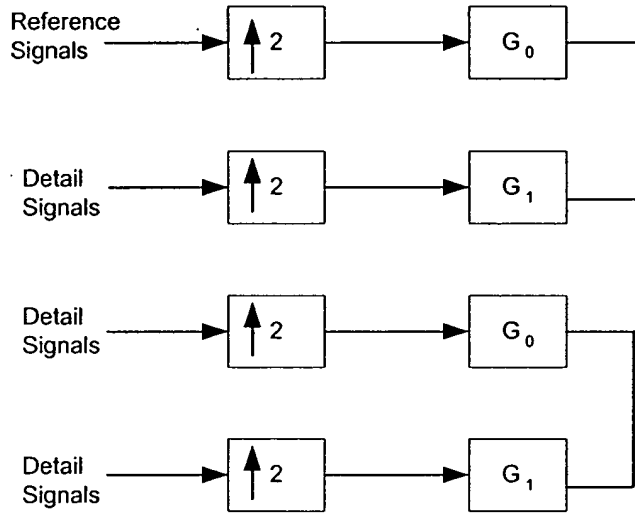


FIG. 5

COLUMN OPERATION



ROW OPERATION

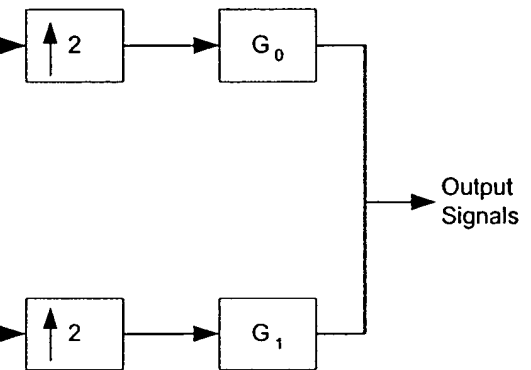


FIG. 6

09740964 1.02100
001237 1.024250

$Q = \text{fix}(\text{abs}(W) ./ \text{cr}) .* \text{sign}(W)$

$W' = (\text{abs}(Q) + 0.5) .* \text{cr} .* (\text{sign}(Q))$

Q: Quantized coefficient

W: Original wavelet coefficient

CR: User defined compression parameter

W': De-quantized coefficient

Fix: Truncates value

Abs: returns magnitude of value

Sign: Return the sign of the number,
Returns zero if the value is zero

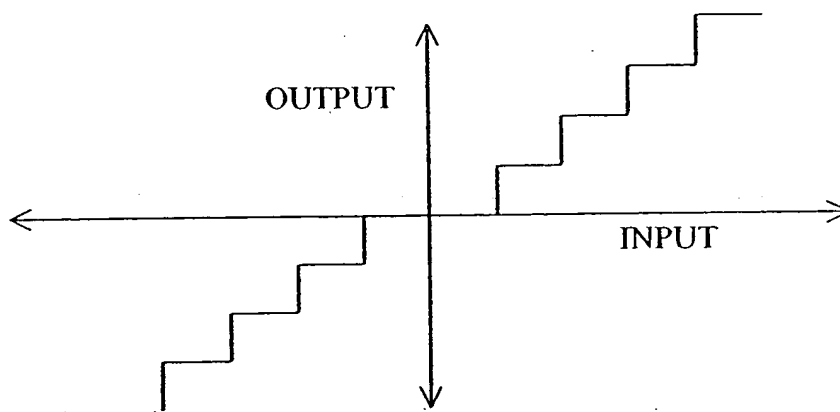


FIG. 7

09740964 1.0E+00

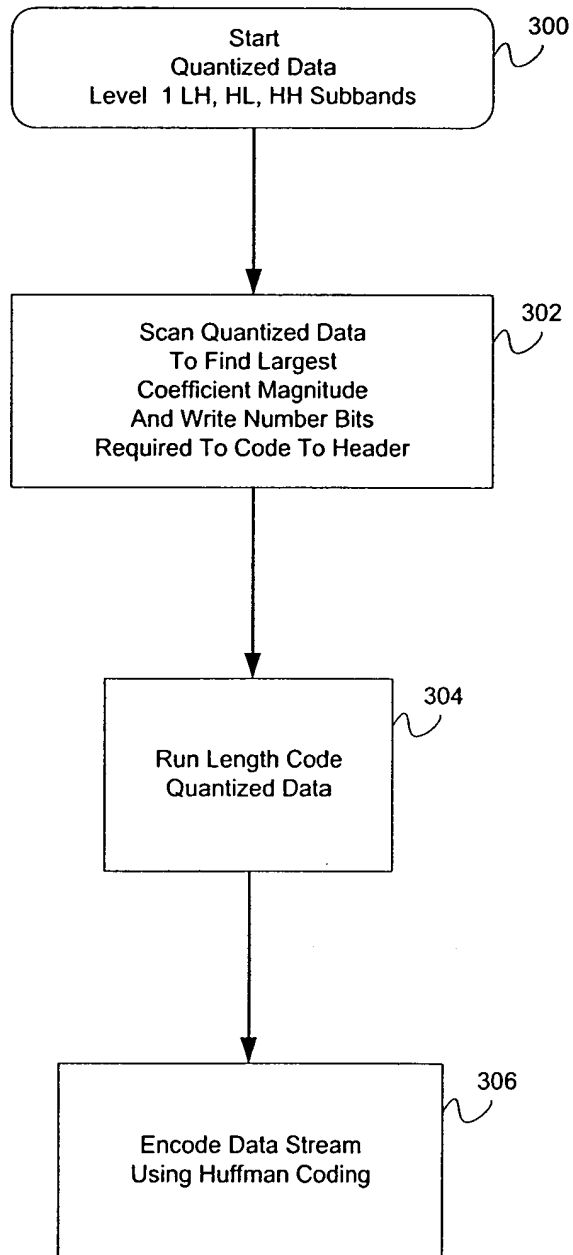


FIG. 8

Input Data:

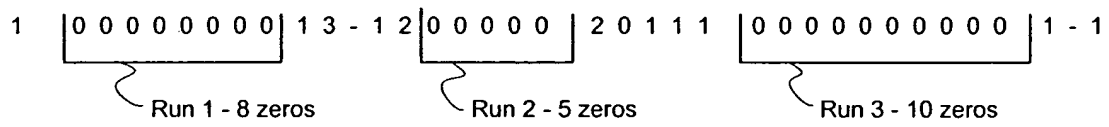


FIG. 9A

Output Data:

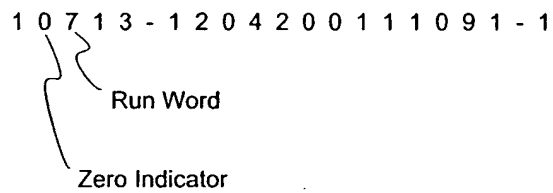


FIG. 9B

Value	Code word
0	0
1	100
-1	101
2	1100
-2	1101
3	11100
-3	11101
4	1111000
-4	1111001
5	11110100
-5	11110101
6	11110110
-6	11110111
7	11111000
-7	11111001
8	111110100
-8	111110101
9	111110110
-9	111110111
10	111111000
-10	111111001
11	111111010
-11	111111011
12	1111111000
-12	1111111001
13	1111111010
-13	1111111011
14	1111111100
-14	1111111101
15	1111111110
esc	1111111111

FIG. 10

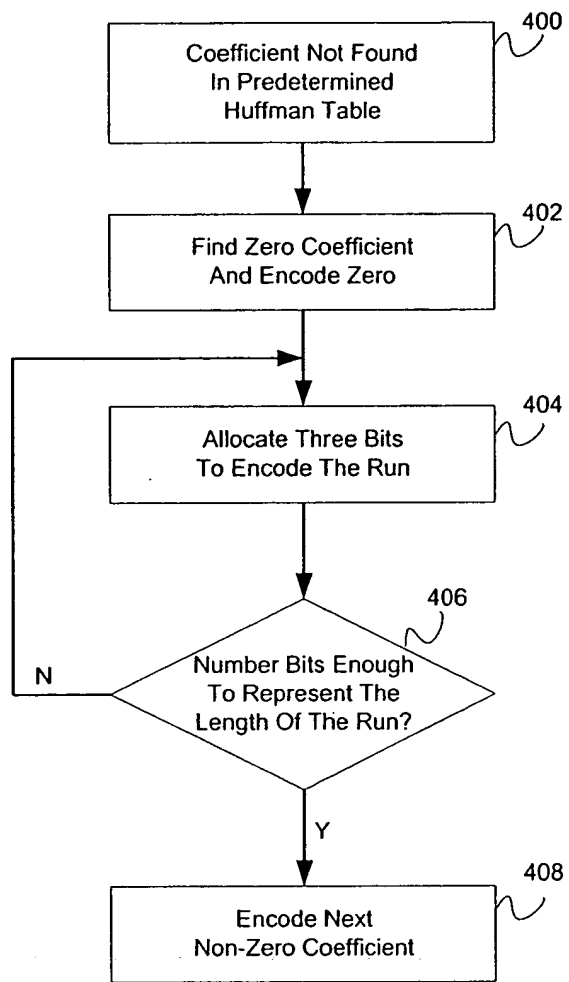


FIG. 11

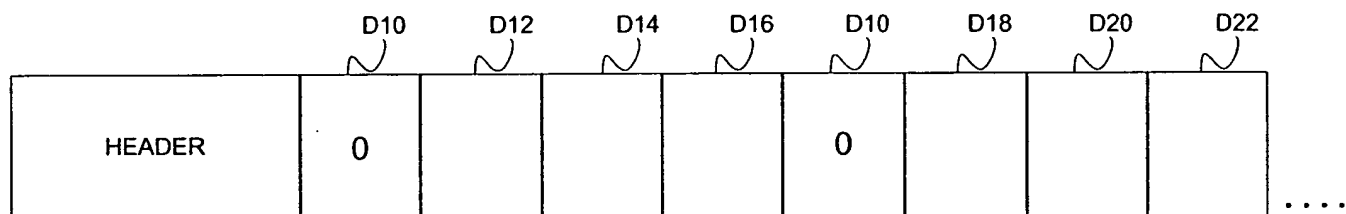


FIG. 12A

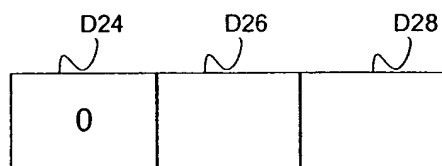


FIG. 12B

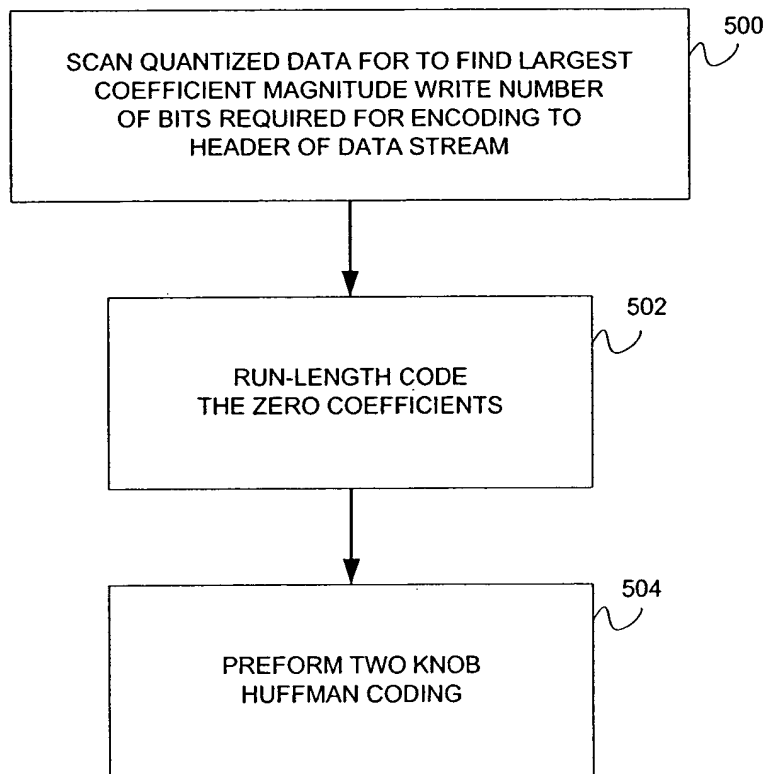


FIG. 13

Value	Code Word
0 short	00
0 long	01
-1	100
1	101
-2	1100
2	1101
-3	11100
3	11101
-4	111100
4	111101
-5	1111100
5	1111101
-6	1111110
escape	1111111

FIG. 14

DC1	AC ₁ 1	AC ₁ 2	AC ₁ 3	AC ₁ 4 ... AC ₁ 10
DC2	AC ₂ 1	AC ₂ 2	AC ₂ 3	AC ₂ 4 ... AC ₂ 10
DC3	AC ₃ 1	AC ₃ 2	AC ₃ 3	AC ₃ 4 ... AC ₃ 10
DC4	AC ₄ 1	AC ₄ 2	AC ₄ 3	AC ₄ 4 ... AC ₄ 10
DC5	AC ₅ 1	AC ₅ 2	AC ₅ 3	AC ₅ 4 ... AC ₅ 10
DC6	AC ₆ 1	AC ₆ 2	AC ₆ 3	AC ₆ 4 ... AC ₆ 10
DC7	AC ₇ 1	AC ₇ 2	AC ₇ 3	AC ₇ 4 ... AC ₇ 10
DC8	AC ₈ 1	AC ₈ 2	AC ₈ 3	AC ₈ 4 ... AC ₈ 10
DC9	AC ₉ 1	AC ₉ 2	AC ₉ 3	AC ₉ 4 ... AC ₉ 10

FIG. 15

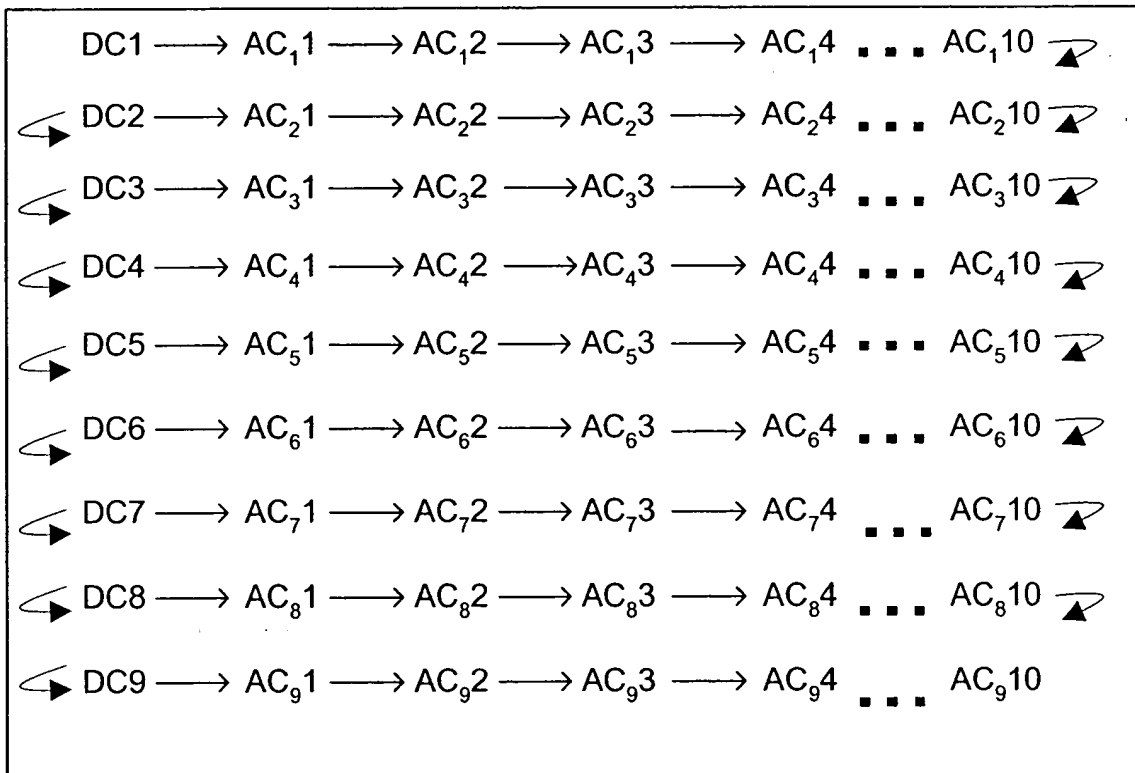


FIG. 16

00740961-13400

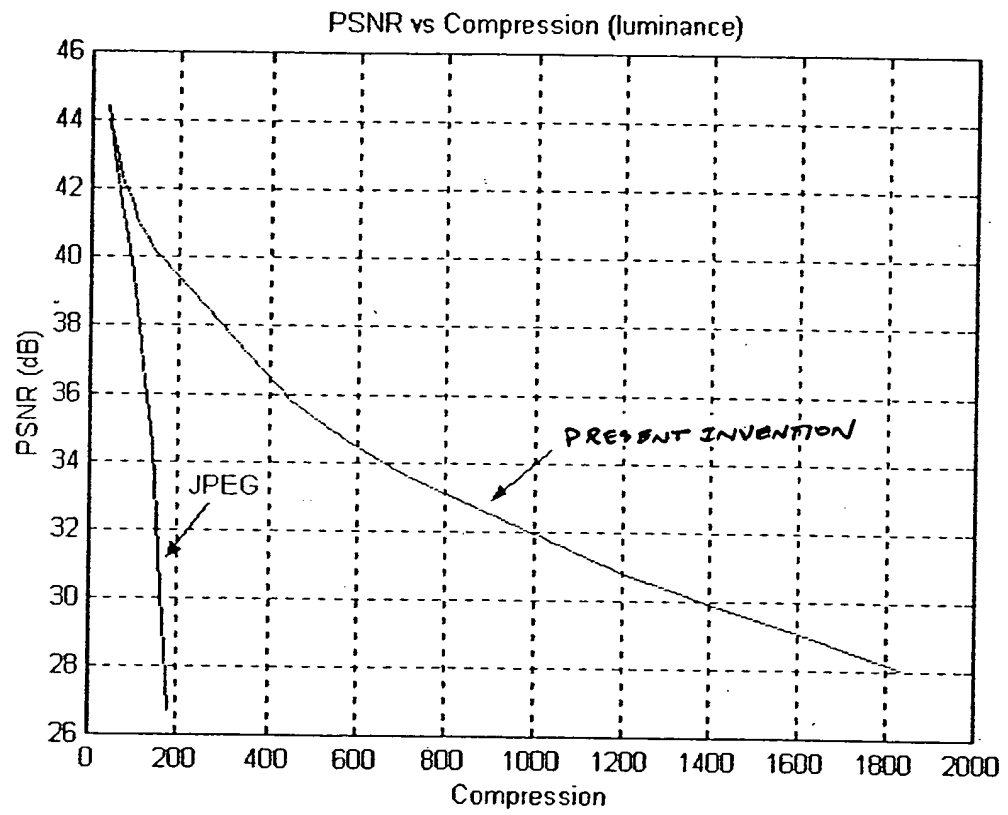


FIG 17



Original

FIG. 18A



JPEG 77:1

FIG. 18B



162:1

FIG. 18C



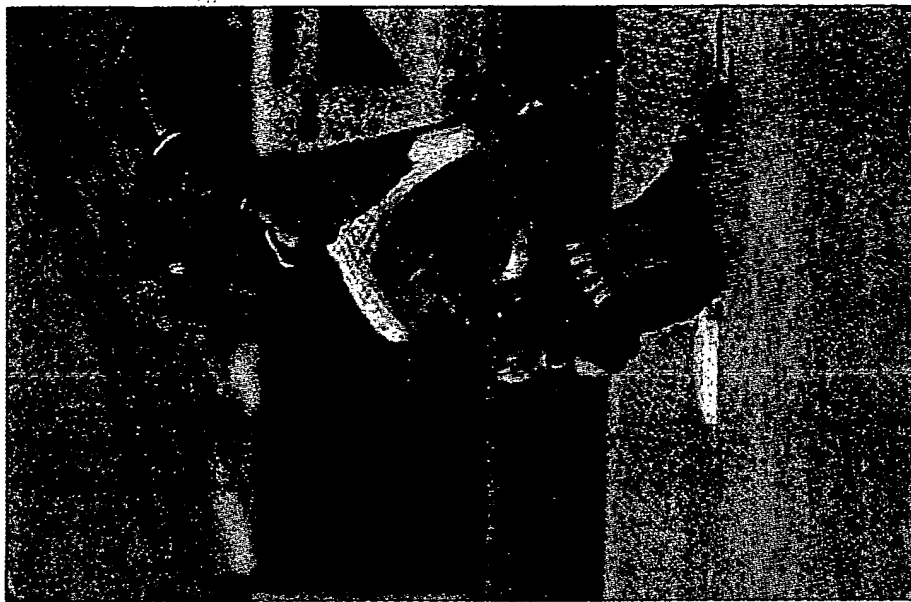
Original

FIG. 19A



JPEG 163:1

FIG. 19B



162:1

FIG. 19C

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☒ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.